IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Heribert Flueter
Serial No. : Unknown
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Title : ATM TRANSMISSION SYSTEM

Art Unit : Unknown
Examiner : Unknown

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Washington, DC 20231

PRELIMINARY AMENDMENT

Prior to examination, please amend the application as follows:

IN THE TITLE:

Please change the title of the invention to - -ATM TRANSMISSION SYSTEM- -.

IN THE SPECIFICATION:

Page 1, line 1, please insert - -This application claims priority to European Patent Application No. EP00128352.2, filed December 22, 2000, the contents of which are hereby incorporated by reference into this application as if set forth herein in full.- -;

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Page 1, line 2, please insert, centered - - BACKGROUND- -;

Page 1, line 17, please insert, centered - -SUMMARY- -;

Page 3, line 2, please change "0.1 List of figures and tables" to - -DESCRIPTION OF THE DRAWINGS"; and

Page 3, line 16, please insert, centered - -DETAILED DESCRIPTION- -.

IN THE CLAIMS:

Please amend claims 1 to 31, as follows:

- - 1. (Amended) Method for transmitting information in paths of an asynchronous transfer mode (ATM) network, comprising:

initiating setup of at least one new path in the ATM network if a capacity of a path currently used for transmission of information exceeds a setup threshold; and

initiating release of at least one path in the ATM network if a capacity of a path currently used for transmission of information is below a release threshold.

2. (Amended) Method according to claim 1, wherein decisions on at least one of path setups and path releases are made in response to at least one of a new call and a new data transmission, and

wherein making an anticipatory decision regarding a path takes into account the capacity of the path currently used for transmission of information and required future capacity.

3. (Amended) Method according to claim 1, wherein at least one of the setup threshold and the capacity of the path currently used for transmission corresponds to accumulated cell rates.

4. (Amended) Method according to claim 1, wherein at least one of the release and setup thresholds and the capacity of the path currently used for transmission corresponds to a number of currently used ATM-channels in at least one path.

5. (Amended) Method according to claim 1, wherein the setup and release thresholds are preset values.

6. (Amended) Method according to claim 1, wherein the setup and release thresholds are variable values that are administrated by the ATM network.

7. (Amended) Method according to claim 1, wherein the ATM network is an ATM-AAL2 network.

8. (Amended) Method according to claim 1, wherein the setup threshold exceeds the release threshold.

9. (Amended) Method according to claim 1, further comprising assigning ATM channels to the path after setting-up the path.

10. (Amended) Method according to claim 1, wherein the capacity of the path currently used for transmission of information corresponds to current traffic in at least one path of all currently used paths.

11. (Amended) Method according to claim 1, wherein at least one of the setup threshold and the release threshold corresponds to at least one of a minimum and a maximum of a distance between currently used network resources and all available path resources.

12. (Amended) Method according to claim 1, wherein a path is an ATM virtual channel connection (VCC).

13. (Amended) Method according to claim 1, wherein a channel is an ATM adaption layer (AAL) channel.

14. (Amended) Method according to claim 1, wherein after setting-up more than one path, each of the more than one paths is occupied completely with ATM-channels before starting to occupy another path with ATM channels.

15. (Amended) Method according to claim 1, wherein a path release for at least one path in the network is initiated if the capacity of the path currently used for transmission of information is below a threshold during at least a preset period of time or if the capacity of the

path currently used for transmission is on average below a threshold during at least a preset period of time.

16. (Amended) Device for transmitting information in paths of an asynchronous transfer mode (ATM) network, comprising:

means for storing thresholds;

means for determining a capacity of a path currently used for transmitting information over the ATM network;

means for comparing the capacity of the path currently used for transmitting information and at least one stored threshold;

means for initiating a path setup of at least one new path in the ATM network if the capacity of the path currently used for transmission of information exceeds a threshold; and

means for initiating release of at least one path in the ATM network if the capacity of the path currently used for transmission of information is below a threshold.

17. (Amended) Device according to claim 16, wherein decisions on at least one of path setups and path releases are made in response to at least one of a new call and a data transmission, and

wherein the capacity of the path currently used for transmission of information includes capacity necessary for at least one of the new call and data transmission.

18. (Amended) Device according to claim 16, wherein at least one of the thresholds and the capacity of the path currently used for transmission of information corresponds to accumulated cell rates.

19. (Amended) Device according to claim 16, wherein at least one of the thresholds and the path currently used for transmission of information corresponds to a number of currently used ATM-channels in at least one path.

20. (Amended) Device according to claim 16, wherein the thresholds are preset values.

21. (Amended) Device according to claim 16, wherein the thresholds are variable values that are administrated by the ATM network.

22. (Amended) Device according to claim 16, wherein the ATM network is an ATM-AAL2 network.

23. (Amended) Device according to claim 16, wherein a threshold for setup of at least one path is bigger than a threshold for release of at least one path.

24. (Amended) Device according to claim 16, wherein after setup of a path, ATM-channels are assigned to the path.

25. (Amended) Device according to claim 16, wherein the capacity of the path currently used for transmission of information corresponds to current ATM network traffic.

26. (Amended) Device according to claim 16, wherein at least one of a setup threshold and a release threshold corresponds to at least one of a minimum and maximum of a distance between currently used network resources and available path resources.

27. (Amended) Device according to claim 16, in which at least a component of the device is provided at an access point of the ATM network.

28. (Amended) Device according to claim 16, wherein a path is an ATM-VCC (virtual channel connection).

29. (Amended) Device according to claim 16, wherein a channel is an AAL2 channel.

30. (Amended) Device according to claim 16, wherein after a setup of more than one path, each path is occupied completely with ATM-channels before starting to occupy another path with ATM channels.

31. (Amended) Device according to claim 16, wherein a path release for at least one path in the ATM network is initiated if the capacity of the path currently used for transmission of information is below a threshold during at least a preset period of time or if the capacity of the

path currently used for transmission of information is on average below a threshold during at least a preset period of time. - -

REMARKS

Entry hereof and early passage to issue are respectfully requested. Applicant's undersigned attorney can be reached at 617-521-7896.

No fee is believed to be due for this Preliminary Amendment. However, if any fee is due, please apply it to deposit account no. 06-1050.

Respectfully submitted,

Date: December 20, 2001

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

1. (Amended) Method for transmitting [transmission of] information in paths of an asynchronous transfer mode (ATM) network, comprising:

initiating [wherein a path] setup of [for] at least one new path in the ATM network [is initiated] if a [the path] capacity of a path currently used for transmission of information exceeds a setup threshold [(Fig. 14, setup threshold),]; and

initiating [wherein a path] release of [for] at least one path in the ATM network [is initiated] if a [the path] capacity of a path currently used for transmission of information is below a release threshold [(Fig. 14, release threshold)].

2. (Amended) Method according to claim 1, wherein [characterized in that the] decisions on at least one of path setups and [and/or] path releases are made [when] in response to at least one of a new call and [or an other] a new data transmission [is requested to be set up], and

wherein [preferably for] making an anticipatory decision regarding a path takes into account the [said] capacity of the path currently used for transmission of information and required future [includes the] capacity [necessary for the new call or data transmission].

3. (Amended) Method according to claim 1, wherein at least one of [any of the preceding claims characterized in that] the setup threshold and [and/or] the [currently used path]

capacity of the path currently used for transmission corresponds to [represents] accumulated cell rates.

4. (Amended) Method according to claim 1, wherein at least one of [any of the preceding claims characterized in that] the release and setup thresholds and [and/or] the [currently used path] capacity of the path currently used for transmission corresponds to a [represent the] number of currently used ATM-channels in at least one path [or in more than one path or in all paths].

5. (Amended) Method according to claim 1, wherein [any of the preceding claims characterized in that] the setup and release thresholds are preset values.

6. (Amended) Method according to claim 1, wherein [any of the preceding claims characterized in that] the setup and release thresholds are variable values that are administrated by the ATM network.

7. (Amended) Method according to claim 1, wherein [any of the preceding claims characterized in that] the ATM network is an ATM-AAL2 network.

8. (Amended) Method according to claim 1, wherein [any of the preceding claims characterized in that] the setup threshold exceeds the release threshold.

9. (Amended) Method according to claim 1, further comprising assigning ATM channels to the path [any of the preceding claims characterized in that] after setting-up [setup of] the [a] path[, ATM-channels can be assigned to the path].

10. (Amended) Method according to claim 1, wherein [any of the preceding claims characterized in that] the [path] capacity of the path currently used for transmission of information corresponds to [is the] current traffic in at least [either] one path of [or] all currently used paths.

11. (Amended) Method according to claim 1, wherein at least one of [any of the preceding claims characterized in that] the setup threshold and the [and/or] release threshold [represents] corresponds to at least one of a minimum and a [or] maximum of a distance between currently used network resources and all available path resources.

12. (Amended) Method according to claim 1, wherein [any of the preceding claims characterized in that] a path is an ATM[-VCC] virtual channel connection (VCC) [(ATM virtual channel connection)].

13. (Amended) Method according to claim 1, wherein [any of the preceding claims characterized in that] a channel is an ATM adaption layer (AAL) channel.

14. (Amended) Method according to claim 1, wherein [any of the preceding claims characterized in that] after setting-up [a setup of] more than one path, each of the more than one paths [a path] is [respectively] occupied completely with ATM-channels before starting to occupy another path with ATM channels.

15. (Amended) Method according to claim 1, wherein [any of the preceding claims characterized in that] a path release for at least one path in the network is initiated [only] if the [path] capacity of the path currently used for transmission of information is below a threshold during at least a preset period of time or if the capacity of the path currently used for transmission [it] is on [the] average below a threshold during at least a preset period of time.

16. (Amended) Device for transmitting [transmission of] information in paths of an asynchronous transfer mode (ATM) network, comprising:

[-with] means for storing thresholds;

[-with] means for determining a [the path] capacity of a path currently used for transmitting [transmission of] information over the ATM network;

[-with] means for comparing the [determined path] capacity of the path currently used for transmitting [transmission of] information and at least one stored threshold;

[-with] means [(Figure 10/ SVC control; access manager) that are designed] for initiating a path setup of [for] at least one new path in the ATM network if the [path] capacity of the path currently used for transmission of information exceeds a threshold [(Fig. 14, setup threshold),]; and

[-with] means [that are designed] for initiating [a path] release of [for] at least one path in the ATM network if the [path] capacity of the path currently used for transmission of information is below a threshold [(Fig. 14, release threshold)].

17. (Amended) Device according to claim 16, wherein [characterized in that the] decisions on at least one of path setups and [and/or] path releases are made in response to at least one of [when] a new call and a [or an other] data transmission [is requested to be set up], and

wherein [preferably] the [said] capacity of the path currently used for transmission of information includes [the] capacity necessary for at least one of the new call and [or] data transmission.

18. (Amended) Device according to claim 16, wherein at least one of [any of the preceding claims 16-17 characterized in that] the thresholds and [and/or] the capacity of the path currently used for transmission of information corresponds to [path capacity represent] accumulated cell rates.

19. (Amended) Device according to [any of the preceding claims 16-18 characterized in that] claim 16, wherein at least one of the thresholds and [and/or] the path currently used for transmission of information corresponds to a [path capacity represent the] number of currently used ATM-channels in at least one path [or in more than one path or in all paths].

20. (Amended) Device according to claim 16, wherein [any of the preceding claims 16-19 characterized in that] the thresholds are preset values.

21. (Amended) Device according to claim 16, wherein [any of the preceding claims 16-20 characterized in that] the thresholds are variable values that are administrated by the ATM network.

22. (Amended) Device according to claim 16, wherein [any of the preceding claims 16-21 characterized in that] the ATM network is an ATM-AAL2 network.

23. (Amended) Device according to claim 16, wherein a [any of the preceding claims 16-22 characterized in that the setup] threshold for setup of at least one path is bigger than a threshold [the release threshold] for release of at least one path.

24. (Amended) Device according to claim 16, wherein [any of the preceding claims 16-23 characterized in that] after setup of a path, ATM-channels are [can be] assigned to the path.

25. (Amended) Device according to claim 16, wherein [any of the preceding claims 16-24 characterized in that] the capacity of the path [capacity] currently used for transmission of information corresponds to [is the] current ATM network traffic.

26. (Amended) Device according to claim 16, wherein at least one of a [any of the preceding claims 16-25 characterized in that the] setup threshold and a [and/or] release threshold corresponds to at least one of [represents] a minimum and [or] maximum of a distance between currently used network resources and [all] available path resources.

27. (Amended) Device according to claim 16, in which at least a component of the device [any of the preceding claims 16-26 characterized in that it or a component of it] is provided at an access point of the [an] ATM network.

28. (Amended) Device according to claim 16, wherein [any of the preceding claims 16-27 characterized in that] a path is an ATM-VCC ([ATM] virtual channel connection).

29. (Amended) Device according to claim 16, wherein [any of the preceding claims 16-28 characterized in that] a channel is an AAL2 channel.

30. (Amended) Device according to claim 16, wherein [any of the preceding claims 16-29 characterized in that] after a setup of more than one path, each [a] path is [respectively] occupied completely with ATM-channels before starting to occupy another [an other] path with ATM channels.

31. (Amended) Device according to claim 16, wherein [any of the preceding claims 16-30 characterized in that] a path release for at least one path in the ATM network is initiated [only] if the [path] capacity of the path currently used for transmission of information is below a threshold during at least a preset period of time or if the capacity of the path currently used for transmission of information [it] is on [the] average below a threshold during at least a preset period of time.